

Mr. Ira Smith
Hydraulic Press Brick Company
Centerton Road
Brooklyn, Indiana, 46111

Re: 109-10905
First Administrative Amendment to
Part 70 109-6835-00007

Dear Mr. Smith:

Hydraulic Press Brick Company was issued Part 70 operating permit T109-6835-00007 on February 2, 1999 for a shale processing plant producing lightweight expanded shale aggregate. A significant source modification (SMM109-10383-00007) was issued to the source on April 29, 1999. A letter requesting that the significant source modification 109-10383-00007 be incorporated into their Part 70 permit was received on November 23, 1998. Pursuant to the provisions of 326 IAC 2-7-11(a)(5) the permit is hereby administratively amended to incorporate the significant source modification 109-10383-00007 into the Part 70 Operating Permit as follows (with new language bolded and old language stricken):

- (1) Condition A.2, Page 7 of 46
Add to the listing of emission units the following:
 - (e) **One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:**
 - (1) **one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,**
 - (2) **one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and**
 - (3) **five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.**
- (2) New Section D.5, Page 42a of 46
The equipment list in Section D.5 shall be as follows:

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (k) One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
- (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 PM Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

Process	Process ID	Stack ID	Emission Limitation (lb/hr)
Screening	ESA 2	ST6	0.42
Crushing	ESA 1	ST6	2.28
Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.2 PM10 Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter less than 10 microns emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

Process	Process ID	Stack ID	Emission Limitation (lb/hr)
Screening	ESA 2	ST6	0.42
Crushing	ESA 1	ST6	1.59
Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM₁₀ to less than 15 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.3 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the one (1) expanded shale aggregate crushing and screening facility which includes:

- (1) one (1) expanded shale aggregate crusher (ID ESA 1), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour),
- (2) one (1) screen (ID ESA 2), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour), and
- (3) five (5) conveyors (ID ESA 3 through ESA 7), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour).

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.5.4 Particulate Matter (PM) [40 CFR 60, Subpart OOO] [326 IAC 12]

That pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants) the particulate emissions from transfer points on belt conveyors and the screening operation shall be limited to 10% opacity, and the stack emissions from any other affected facility shall be limited to 0.05 g/dscm or less; or to be limited to 7 percent opacity or less.

D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing on Stack ST6 utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.5.7 Particulate Matter (PM)

- (a) The baghouse for PM control shall be in operation at all times when the one (1) expanded shale aggregate crusher (ID ESA 1) and one (1) screen (ID ESA 2) are in operation.

- (b) The water sprinkling system for PM control shall be in operation at all times when the five (5) conveyors (ID ESA 3 through ESA 7) is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.8 Visible Emissions Notations

- (a) Daily visible emission notations of the expanded shale aggregate crusher line, identified as ESA, stack exhaust and conveying operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.5.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the ESA baghouse used in conjunction with the expanded shale aggregate crusher line, at least once weekly when the expanded shale aggregate crusher line is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.5.10 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.5.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).**
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).**

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.12 Record Keeping Requirements

- (a) To document compliance with Condition D.5.8, the Permittee shall maintain records of daily visible emission notations of the expanded shale aggregate crusher line stack exhaust.**
- (b) To document compliance with Condition D.5.9, the Permittee shall maintain the following:**
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:**
 - (A) Inlet and outlet differential static pressure; and**
 - (B) Cleaning cycle: frequency and differential pressure**
 - (2) Documentation of all response steps implemented, per event.**
 - (3) Operation and preventive maintenance logs, including work purchase orders, shall be maintained.**
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.**
 - (5) Operator standard operating procedures (SOP).**
 - (6) Manufacturer's specifications or its equivalent.**
 - (7) Equipment "troubleshooting" contingency plan.**
 - (8) Documentation of the dates vents are redirected.**

- (b) To document compliance with Condition D.5.10, the Permittee shall maintain records of the results of the inspections required under Condition D.5.10 and the dates the vents are redirected.**
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

The table of contents, description of equipment and reporting forms will also be updated to include the above referenced information. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

Operation of the new equipment incorporated into the Part 70 operating permit by this amendment may commence operation upon issuance of this approval. This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter please contact Phillip Ritz, at 973-575-2555 (ext. 3241) or 1-800-451-6027 press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

PR

cc: File - Morgan County
U.S. EPA, Region V
Morgan County Health Department
Air Compliance Section Inspector Marc Goldman
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Nancy Landau

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**Hydraulic Press Brick Company
Centerton Road
Brooklyn, Indiana 46111**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T109-6835-00007	
Issued by: Felicia R. George, Assistant Commissioner Office of Air Management	Issuance Date: February 2, 1999
First Administrative Amendment: 109-10905	Pages Affected: 4, 5, 6, 6a, 42a, 42b, 42c, 42d
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.11 Record Keeping Requirements

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D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.3.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

D.3.4 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.5 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.6 Record Keeping Requirements

D.4 FACILITY OPERATION CONDITIONS - Clinker Cooler 40

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D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

D.4.4 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.5 Parametric Monitoring

D.4.6 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.7 Record Keeping Requirements

D.5 FACILITY CONDITIONS-

One (1) expanded shale aggregate crusher line 42a

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 PM Emission Limitations [325 IAC 2-2] [40 CFR 52.21]

D.5.2 PM 10 Emission Limitations [325 IAC 2-2] [40 CFR 52.21]

D.5.3 Particulate Matter (PM) [326 IAC 6-3-2]

D.5.4 Particulate Matter (PM) [40 CFR 60, Subpart OOO] [326 IAC 12]

D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

D.5.7 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.5.8 Visible Emissions Notations
- D.5.9 Parametric Monitoring
- D.5.10 Baghouse Inspections
- D.5.11 Broken or Failed Bag Detection

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- D.5.12 Record Keeping Requirements

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary shale processing plant producing lightweight expanded shale aggregate.

Responsible Official: Ira Smith
Source Address: Centerton Road, Brooklyn, Indiana 46111
Mailing Address: P.O. Box 7, Brooklyn, Indiana 46111-0007
SIC Code: 3295
County Location: Morgan
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) pre-kiln shale processing operation, identified as pre-kiln, with a maximum capacity of 200 tons of raw shale per hour, using wet suppression of fugitive dust as control, and exhausting fugitively, and consisting of the following equipment:
 - (1) one (1) primary crusher, identified as PK1, with a maximum capacity of 200 tons of raw shale per hour,
 - (2) one (1) secondary crusher, identified as PK2, with a maximum capacity of 100 tons of raw shale per hour,
 - (3) six (6) conveyors, identified as PK3 through PK8, each with a maximum capacity of 200 tons of raw shale per hour,
- (b) Two (2) rotary kilns, identified as K3 and K4, each with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, each with a maximum capacity of 20 tons of raw shale per hour, each using a Peabody wet scrubber as control, and each exhausting to stack ST4,
- (c) One (1) rotary kiln, identified as K5, with a maximum heat input of 100 MMBtu per hour burning natural gas or bituminous coal, with a maximum capacity of 40 tons of raw shale per hour, using a cloth baghouse as control, and exhausting to stack ST5,
- (d) One (1) haydite crusher line, identified as HCR, with a maximum capacity of 100 tons of expanded shale per hour, using wet suppression of fugitive dust as control, exhausting fugitively, and consisting of the following equipment:
 - (1) one (1) primary haydite crusher, identified as HCR1, with a maximum capacity of 100 tons of expanded shale per hour,

- (2) one (1) secondary haydite crusher, identified as HCR2, with a maximum capacity of 100 tons of expanded shale per hour,
 - (3) three (3) screens, identified as HCR3 through HCR5, each with a maximum capacity of 100 tons of expanded shale per hour, and
 - (4) seven (7) conveyors, identified as HCR9 through HCR15, each with a maximum capacity of 100 tons of expanded shale per hour, and
- (d) One (1) reciprocating grate clinker cooler, identified as CLNKCOOL, with a maximum capacity of 40 tons of expanded shale per hour, using a multiclone as control, and exhausting to stack ST2.
- (e) One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
 - (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Paved and unpaved roads and parking lots with public access,
- (b) Other activities or categories not previously identified with emissions below insignificant thresholds:
 - (1) Two coal silos, identified as silos 1 and 2, with a conveying system.
 - (2) Four (4) covered silos, identified as silos 3, 4, 5A, and 5B, each with a maximum capacity of 200 tons of raw shale,
 - (3) Three (3) hoppers, identified as HCR6 through HCR8, each with a maximum capacity of 100 tons of raw shale per hour,
 - (4) Two (2) chutes, identified as HCR16 and HCR17, each with a maximum capacity of 100 tons of expanded shale per hour.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (k) One (1) expanded shale aggregate crusher line, identified as ESA, with a maximum capacity of 30 tons of expanded shale per hour and consisting of the following equipment:
- (1) one (1) expanded shale aggregate crusher, identified as ESA 1, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6,
 - (2) one (1) screen, identified as ESA 2, utilizing a baghouse as particulate control, with a maximum capacity of 30 tons of expanded shale per hour and exhausting through stack ST6, and
 - (3) five (5) conveyors, identified as ESA 3 through ESA 7, each with a maximum capacity of 30 tons of expanded shale per hour, utilizing a water spray system on the feed conveyor as particulate control and exhausting fugitively.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 PM Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

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Screening	ESA 2	ST6	0.42
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Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM to less than 25 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.2 PM10 Emission Limitations [326 IAC 2-2] [40 CFR 52.21]

The following is a summary to satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules). The particulate matter less than 10 microns emissions from the following expanded shale aggregate crusher processes shall be limited as follows:

Process	Process ID	Stack ID	Emission Limitation (lb/hr)
Screening	ESA 2	ST6	0.42
Crushing	ESA 1	ST6	1.59
Conveying	ESA 3-7	NA	1.20

This emission limit is required to limit the potential to emit of PM10 to less than 15 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.5.3 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the one (1) expanded shale aggregate crushing and screening facility which includes:

- (1) one (1) expanded shale aggregate crusher (ID ESA 1), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour),
- (2) one (1) screen (ID ESA 2), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour), and
- (3) five (5) conveyors (ID ESA 3 through ESA 7), shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour of expanded shale (equivalent to 30 tons per hour).

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.5.4 Particulate Matter (PM) [40 CFR 60, Subpart OOO] [326 IAC 12]

That pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants) the particulate emissions from transfer points on belt conveyors and the screening operation shall be limited to 10% opacity, and the stack emissions from any other affected facility shall be limited to 0.05 g/dscm or less; or to be limited to 7 percent opacity or less.

D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing on Stack ST6 utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.5.7 Particulate Matter (PM)

- (a) The baghouse for PM control shall be in operation at all times when the one (1) expanded shale aggregate crusher (ID ESA 1) and one (1) screen (ID ESA 2) are in operation.
- (b) The water sprinkling system for PM control shall be in operation at all times when the five (5) conveyors (ID ESA 3 through ESA 7) is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.8 Visible Emissions Notations

- (a) Daily visible emission notations of the expanded shale aggregate crusher line, identified as ESA, stack exhaust and conveying operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.5.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the ESA baghouse used in conjunction with the expanded shale aggregate crusher line, at least once weekly when the expanded shale aggregate crusher line is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.5.10 Baghouse Inspections

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In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee

satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.12 Record Keeping Requirements

- (a) To document compliance with Condition D.5.8, the Permittee shall maintain records of daily visible emission notations of the expanded shale aggregate crusher line stack exhaust.
- (b) To document compliance with Condition D.5.9, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure
 - (2) Documentation of all response steps implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (b) To document compliance with Condition D.5.10, the Permittee shall maintain records of the results of the inspections required under Condition D.5.10 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.